

CLAIMS:

1. A replicon of a pestivirus which is incapable of expressing one or more structural proteins of the virus, characterized in that said replicon expresses all structural proteins of a pestivirus except for a functional C and/or E1 protein.
2. A replicon according to claim 1, characterized in that at least part of the coding sequence of the E1 or C protein has been deleted from said replicon.
3. A replicon according to claim 1 or 2, characterized in that said replicon does not encode a functional C protein.
4. A replicon according to claim 1 or 2, characterized in that said replicon is of the Bovine Viral Diarrhea Virus (BVDV).
5. A replicon according to claim 4, characterized in that the coding region encoding amino acid positions 201-243 of the C protein have been deleted.
6. A replicon according to claim 1 or 2, characterized in that said replicon does not encode a functional E1 protein.
7. A replicon according to claim 4, characterized in that the coding region encoding amino acid positions 498 to 653 of the E1 protein have been deleted.
8. Infectious viral particle of Pestivirus, characterized in that it contains a replicon according to any of claims 1-7.
9. A method for the production of viral particles of a Pestivirus according to claim 8, characterized in that said method comprises the following steps:
 - a. Providing cells that are permissive for the Pestivirus and express Pestiviral E1 and/or C protein,
 - b. Transfecting said cells with in-vitro transcribed RNA of a replicon according to any of claims 1 to 7,
 - c. Culturing transfected cells obtained in step b,
 - d. Harvesting the viral particles from the cultured cells.
10. A method according to claim 9, characterized in that said pestivirus is BVDV.
11. A method according to claim 10 or 11, characterized in that said cells express the E1 and/or C protein of BVDV.
12. A vaccine containing infectious viral particles according to claim 8 and a pharmaceutically acceptable carrier.